

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1 (currently amended): A single pass progressive dot printing ink-jet process comprising the steps of:

applying a first UV curable ink drop to a substrate; ~~and~~
applying a second UV curable ink drop on to the first UV curable ink drop without intermediate solidification of the first UV curable ink drop; ~~and~~

subsequently applying additional UV curable ink drops sequentially to the combined first and second UV curable ink drops without intermediate solidification of the first and second UV curable ink drops; wherein

~~the first and second UV curable ink drops have a different viscosity, surface tension or curing speed~~

a viscosity of the first to the additional UV curable ink drops applied varies in a graduated manner within a range of from 10 up to 30 mPa·s or a range of from 30 down to 10 mPa·s; and

a curing speed of the first to the additional UV curable ink drops applied varies in a graduated manner within a range of from 20 up to 70 m/min or a range of from 70 down to 20 m/min.

Claim 2 (canceled).

Claim 3 (currently amended): The single pass progressive dot printing ink-jet process according to claim 2~~1~~, wherein at least four UV curable ink drops are applied sequentially during a single pass of the substrate.

Claim 4 (previously presented): The single pass progressive dot printing ink-jet process according to claim 1, wherein the first and second UV curable ink drops are different colors.

Claim 5 (previously presented): The single pass progressive dot printing ink-jet process according to claim 4, wherein the UV curable ink drops are selected from cyan, magenta, yellow and black.

Claim 6 (canceled).

Claim 7 (currently amended): The single pass progressive dot printing ink-jet process according to claim 1, wherein ~~the~~ a surface tension of the first to the ~~last~~ additional UV curable ink drops applied varies in a graduated manner within a range of from 20 up to 40 dynes/cm or a range of from 40 down to 20 dynes/cm.

Claim 8 (canceled).

Claim 9 (currently amended): A set of UV curable ink-jet inks suitable for use in a single pass progressive dot printing ink-jet process comprising:

at least four UV curable inks having a different viscosity, surface tension, ~~or~~ and curing speed; wherein

the viscosity of the UV curable inks varies in a graduated manner within a range of from 10 up to 30 mPa·s or a range of from 30 down to 10 mPa·s;

the surface tension of the UV curable inks varies in a graduated manner within a range of from 20 up to 40 dynes/cm or a range of from 40 down to 20 dynes/cm; and

the curing speed of the UV curable inks varies in a graduated manner within a range of from 20 up to 70 m/min or a range of from 70 down to 20 m/min.

Claim 10 (previously presented): The set of UV curable ink-jet inks according to claim 9, wherein the UV curable inks are selected from cyan, magenta, yellow and black.

Claims 11-13 (canceled).

Claim 14 (previously presented): An ink dispenser holding a set of UV curable ink-jet inks according to claim 9.

Claim 15 (canceled).

Claim 16 (previously presented): A single pass progressive dot printing ink-jet process comprising the steps of:

applying a first UV curable ink drop to a substrate; and

applying a second UV curable ink drop on to the first UV curable ink drop without intermediate solidification of the first UV curable ink drop,

wherein subsequent UV curable ink drops are applied sequentially to the combined first and second UV curable ink drops without intermediate solidification of the first and second UV curable ink drops,

wherein a viscosity of the first to a last UV curable ink drop applied varies in a graduated manner within a range of from 10 up to 30 mPa·s or a range of from 30 down to 10 mPa·s.

Claim 17 (previously presented): A single pass progressive dot printing ink-jet process comprising the steps of:

applying a first UV curable ink drop to a substrate; and

applying a second UV curable ink drop on to the first UV curable ink drop without intermediate solidification of the first UV curable ink drop,

wherein subsequent UV curable ink drops are applied sequentially to the combined first and second UV curable ink drops without intermediate solidification of the first and second UV curable ink drops,

wherein a surface tension of the first to a last UV curable ink drop applied varies in a graduated manner within a range of from 20 up to 40 dynes/cm or a range of from 40 down to 20 dynes/cm.

Claim 18 (previously presented): A single pass progressive dot printing ink-jet process comprising the steps of:

applying a first UV curable ink drop to a substrate; and

applying a second UV curable ink drop on to the first UV curable ink drop without intermediate solidification of the first UV curable ink drop,

wherein subsequent UV curable ink drops are applied sequentially to the combined first and second UV curable ink drops without intermediate solidification of the first and second UV curable ink drops,

wherein a cure speed of the first to a last UV curable ink drop applied varies in a graduated manner within a range of from 20 up to 70 m/min or a range of from 70 down to 20 m/min.

Claim 19 (currently amended): A set of UV curable inkjet inks suitable for use in a single pass progressive dot printing inkjet process comprising:

at least ~~two~~ four UV curable inks having a different viscosity, ~~surface tension or curing speed~~, wherein the viscosity of the UV curable inks varies in a graduated manner within a range of from 10 up to 30 mPa·s or a range of from 30 down to 10 mPa·s.

Claim 20 (currently amended): A set of UV curable inkjet inks suitable for use in a single pass progressive dot printing inkjet process comprising:

at least ~~two~~ four UV curable inks having a different ~~viscosity~~, surface tension or ~~curing speed~~, wherein the surface tension of the UV curable inks varies in a graduated

manner within a range of from 20 up to 40 dynes/cm or a range of from 40 down to 20 dynes/cm.

Claim 21 (currently amended): A set of UV curable inkjet inks suitable for use in a single pass progressive dot printing inkjet process comprising:

at least ~~two~~ four UV curable inks having a different ~~viscosity, surface tension or~~ curing speed, wherein the curing speed of the UV curable inks varies in a graduated manner within a range of from 20 up to 70 m/min or a range of from 70 down to 20 m/min.

Claim 22 (new): The single pass progressive dot printing ink-jet process according to claim 16, 17, or 18, wherein at least four UV curable ink drops are applied sequentially during a single pass of the substrate.

Claim 23 (new): The single pass progressive dot printing ink-jet process according to claim 16, 17, or 18, wherein the first and second UV curable ink drops are different colors.

Claim 24 (new): The single pass progressive dot printing ink-jet process according to claim 16, 17, or 18, wherein the UV curable ink drops are selected from cyan, magenta, yellow and black.

Claim 25 (new): The ink-jet set according to claim 19, 20, or 21, wherein the at least four UV curable inks include cyan, magenta, yellow and black.

Claim 26 (new): The ink-jet set according to claim 19, 20, or 21, wherein each of the at least four UV curable inks includes a cationic photoinitiator.

Claim 27 (new): The ink-jet set according to claim 19, 20, or 21, wherein each of the at least four UV curable inks includes a pigment as a colorant.

Claim 28 (new): The ink-jet set according to claim 19, 20, or 21, wherein each of the four UV curable inks includes:

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|----------------------------|------------|
| a) monofunctional acrylate | 15-45%; |
| b) polyfunctional acrylate | 45-55%; |
| c) photoinitiators | 1.0-6.0%; |
| d) synergist additive | <5%; |
| e) pigment dispersion | <3%; and |
| f) surfactant additive | 0.01-2.0%. |